LISTING OF THE CLAIMS

1. (Currently amended). A method of increasing the production of a biologically active compound in a *Saccharopolyspora*, *Aeromicrobium* or *Streptomyces* cell wherein the biologically active compound is derived ~~at least in part~~ from methylmalonyl-CoA, the method comprising the step of inhibiting [[the]] an activity of methylmalonyl-CoA mutase;

wherein the biologically active compound is selected from the group consisting of an immunosuppressant, an anti-fungal agent, and anti-parasitic agent, an antibiotic, and an animal feed promotant; and

wherein the production of the biologically active compound is increased when compared to production of the same biologically active compound from the cell wherein the activity of methylmalonyl-CoA mutase is not inhibited.

2. (Withdrawn). The method of claim 1 wherein the biologically active compound is an immunosuppressant.

3. (Withdrawn). The method of claim 2 wherein the immunosuppessant is rapamycin, FK520, or ascomycin.

4. (Withdrawn). The method of claim 1 wherein the biologically active compound is an antifungal agent.

5. (Withdrawn). The method of claim 4 wherein the antifungal agent is rapamycin, candicidin or soraphen.

6. (Withdrawn). The method of claim 1 wherein the biologically active compound is an antiparasitic agent.

7. (Withdrawn). The method of claim 6 wherein the antiparasitic agent is avermectin.

8. (Original). The method of claim 1 wherein the biologically active compound is an antibiotic.

9. (Original). The method of claim 8 wherein the antibiotic is a polyketide antibiotic.

10. (Original). The method of claim 9 wherein the polyketide antibiotic is a macrolide polyketide antibiotic.

11. (Original). The method of claim 10 wherein the macrolide polyketide antibiotic is erythromycin, tylosin, niddamycin, spiramycin, oleandomycin, methymycin, neomethymycin, narbomycin, pikromycin, or lankamycin.

12. (Withdrawn). The method of claim 1 wherein the biologically active compound is an animal feed promotant.

13. (Withdrawn). The method of claim 12 wherein the animal feed promotant is a monensin.

14. (Withdrawn). The method of claim 12 wherein the monensin is monensin A or monensin B.

15.-17. (Canceled).

18. (Original). The method of claim 17 wherein the bacterial cell is a *Saccharopolyspora* erythraea or an *Aeromicrobium* erythreum.

19. (Original). The method of claim 18 wherein the bacterial cell is *Streptomyces* fradiae, *Streptomyces* avermitilis, *Streptomyces cinnamonensis*, *Streptomyces* antibioticus, *Streptomyces* venezuelae, *Streptomyces* violaceoniger, *Streptomyces* hygroscopicus, *Streptomyces* spp. FR-008, or *Streptomyces* griseus.

20.-23. (Cancelled)

24. (Original). The method of claim 1 wherein inhibiting is accomplished by reducing the level of a co-factor necessary for methylmalonyl-CoA mutase activity.

25. (Original). The method of claim 24 wherein the co-factor is coenzyme B12.

26. (Currently amended). The method of claim 25 wherein the level of coenzyme B12 is reduced by inhibiting the transcription of a [[*cob*]] <u>cob(I)alamin adenosyltransferase</u> gene.

27. (Withdrawn). The method of claim 1 wherein inhibiting the activity of methylmalonyl-CoA mutase is accomplished by inhibiting the transcription of a gene for methylmalonyl-CoA mutase.

28. (Withdrawn). The method of claim 27 wherein inhibiting the transcription of a gene for methylmalonyl-CoA mutase is accomplished by mutating the gene for methylmalonyl-CoA mutase such that the mutated gene does not encode an enzymatically active methylmalonyl-CoA mutase.

29. (Withdrawn). The method of claim 28 wherein mutating is accomplished by mutating a wild type methylmalonyl CoA gene in vitro.

30. (Withdrawn). A method of increasing the production of an antibiotic in a bacterial cell wherein the antibiotic is derived at least in part from methylmalonyl-CoA, the method comprising the step of inhibiting the activity of methylmalonyl-CoA mutase in the bacterial cell.

31. (Withdrawn). The method of claim 30 wherein the antibiotic is a polyketide macrolide antibiotic.

32. (Withdrawn). The method of claim 31 wherein the polyketide macrolide antibiotic is erythromycin.

33. (Withdrawn). The method of claim 32 wherein the bacterial cell is a *Saccharopolyspora* or *Aeromicrobium*.

34. (Withdrawn). The method of claim 33 wherein the bacterial cell is *Saccharopolyspora* erythraea or *Aeromicrobium* erythreum.